PATENT CLAIMS

1. Use of a measurem nt device (1, 6-9; 11-14, 17, 18) for m asuring a parameter indicating amount of dust deposited on a surface, and of an indicator (10, 19) signal-wise connected to the measurement device for specifying an indication of the parameter,
for monitoring a contaminated, dirty or inflammable condition in an electrical consumer appliance, e.g. a TV set.

2. Use of an optical measurement device (1, 6-9) for measuring attenuation of a light beam (A) transmitted through an amount of dust deposited on a surface, and of an indicator (10) connected to the measurement device (1, 6-9) for specifying a measurement value that is a function of the attenuation,
for monitoring dust thickness in an electrical consumer appliance, e.g. a TV set.

3. The use of claim 2, wherein the output intensity of the through light beam (A) is compared to the intensity of a reference light beam (B) passing outside the amount of dust.

4. The use of claim 2 ~~or 3~~, wherein the light beam (A) is transmitted along and through the dust layer, possibly as a divergent or expanded beam to increase measurement sensitivity, and which beam is then possibly focused towards a photodetector (7) by means of a lens (4) situated after said surface.

5. The use of claim 2 ~~or 3~~, wherein the light beam is transmitted substantially transversely to the dust layer, possibly with a reflection against the underlying surface so that the dust layer is passed twice before detection.

6. Use of a thermal measurement device (11-14, 17, 18) for measuring heat insulating ability for an amount of dust deposited on a surface, and of an indicator (19) connected to the measurem nt device for specifying a measurement value that is a function of said heat insulating ability,
for monitoring dust thickness in an electrical consumer appliance, e.g. a TV set.

7. The use of claim 6, wherein temp rature is measured by means of a temperature sensor (15) in an object that is thermally closely attached to said surface, heat being supplied to said object (15) by means of a heating element, so that said surface emits heat radiation, said emission being dependent on the thickness of said dust layer.

8. The use of claim 7, wherein temperature is also measured in a reference object (16) which is not subject to coating by dust, and in a corresponding manner as in said object (15), known and possibly equal power being supplied to the object (15) and the reference object (16), and a comparison between the measured temperatures constitutes a basis for specified measurement value from the indicator (19).

9. Use of an ultrasound measurement unit for measuring attenuation of ultrasound energy transmitted through an amount of dust deposited on a surface, and of an indicator connected to said ultrasound measurement unit for specifying a measurement value that is a function of the attenuation,
for monitoring dust thickness in an electrical consumer appliance, e.g. a TV set.

10. Use of a pressure sensor for measuring superpressure caused by an amount of dust deposited on a surface, and of an indicator connected to the pressure sensor for specifying a measurement value that is a function of said superpressure,
for monitoring dust weight in an electrical consumer appliance, e.g. a TV set.

11. Use of a strain sensor for measuring degree of flexure for a plate that is subject to the weight of an amount of dust deposited on a surface on the plate, and of an indicator connected to the strain sensor for specifying a measurement value that is a function of the degree of flexure,
for monitoring dust weight in an electrical consumer appliance, e.g. a TV set.

12. The use of ~~any one of claims~~ claim 2-~~11~~, wherein said indicator displays continuously a measur ment value on an analog scale or by digital display.

a 13. The use of ~~any one of claims~~ claim 2-~~11~~, wherein said indicator indicates the exceeding of a threshold value for said measurement value by delivering a warnng signal that may be of an optical or acoustical type, possibly both.

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